

GEORGE ENGELMANN BOTANICAL NOTEBOOKS

*Pagination Note:
Since many of the items lack a specific
page number, the page number displayed
online refers to the sequentially created
number each item was given upon
cataloging the materials.*

1-10

115
Najadaceae



0
cm

1

2

3

4

5

6

7

8

9

10

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MISSOURI
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GARDEN

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1

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cm

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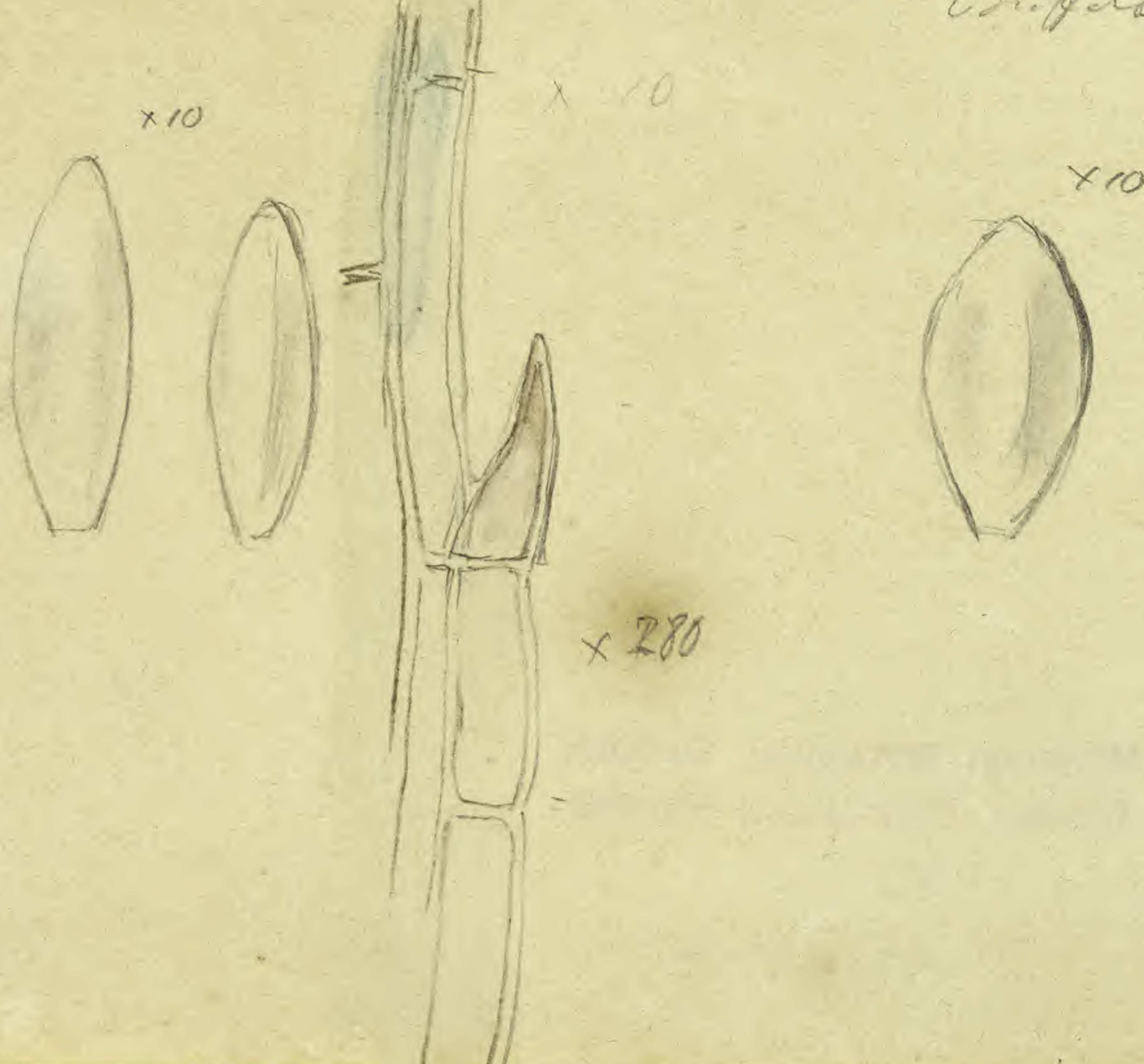
Najas flexilis

Sept 15 1867

Seed smooth, brown, shining

Cambridge & Wm. Pease

Ad. H. D.



0 1 2 3 4 5 6 7 8 9 10
cm

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0 1 2 3 4 5 6 7 8 9 10

cm

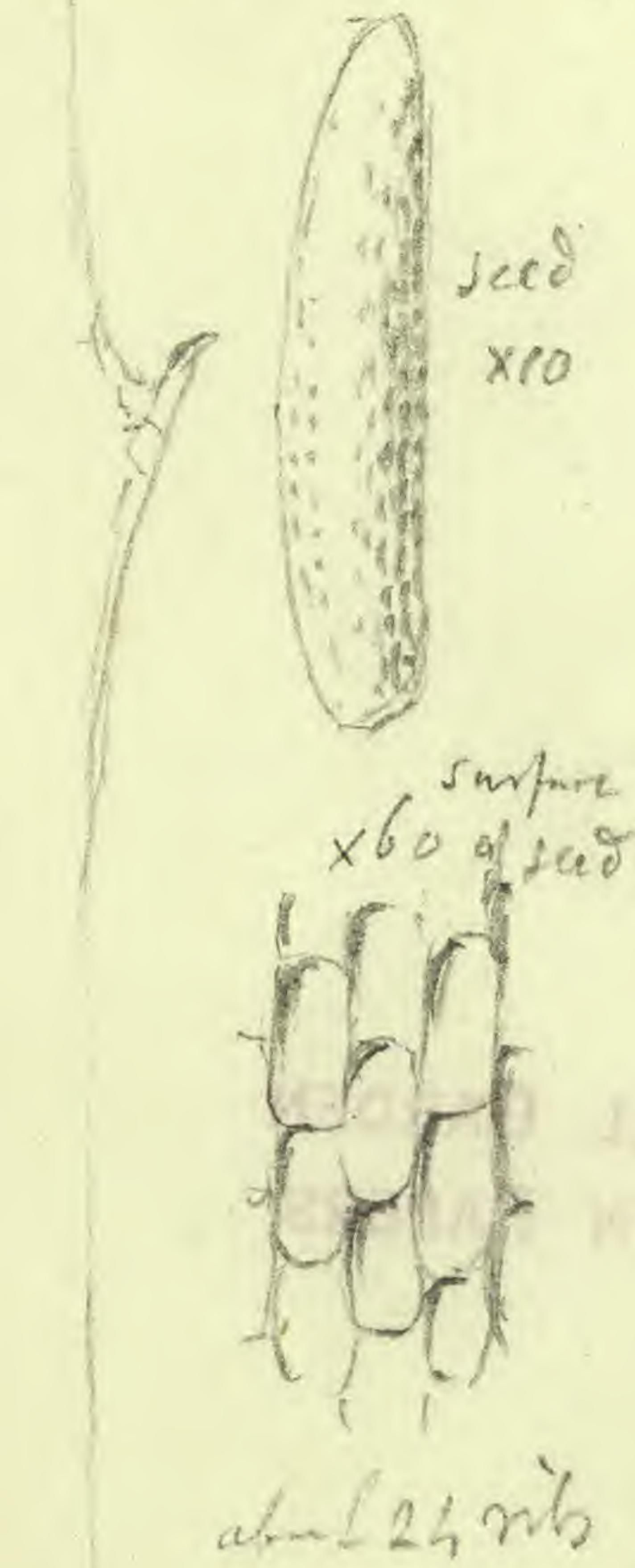
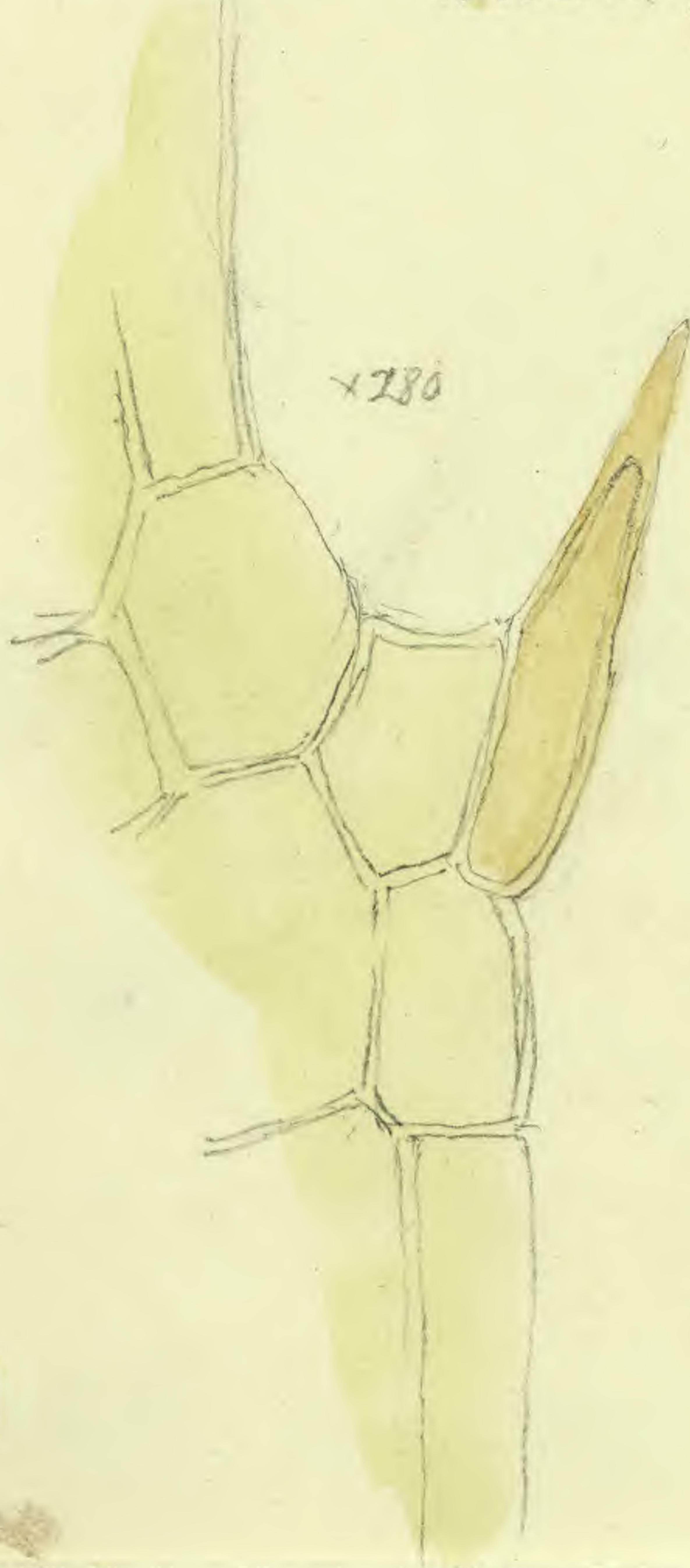
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Najas indica var. grossulum Schrad. Oct 23 1867
Woburn, Mass. Wm Booth Oct 1867

Gray Man 1870
p. 681



Leaves grass slender
straight $2\frac{1}{2}$ - $3\frac{1}{2}$ in
long, with 30-40 teeth



0 1 2 3 4 5 6 7 8 9 10
cm

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ALEX. LEITCH,
APOTHECARY & PHARMACEUTIST

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

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0 1 2 3 4 5 6 7 8 9 10
cm

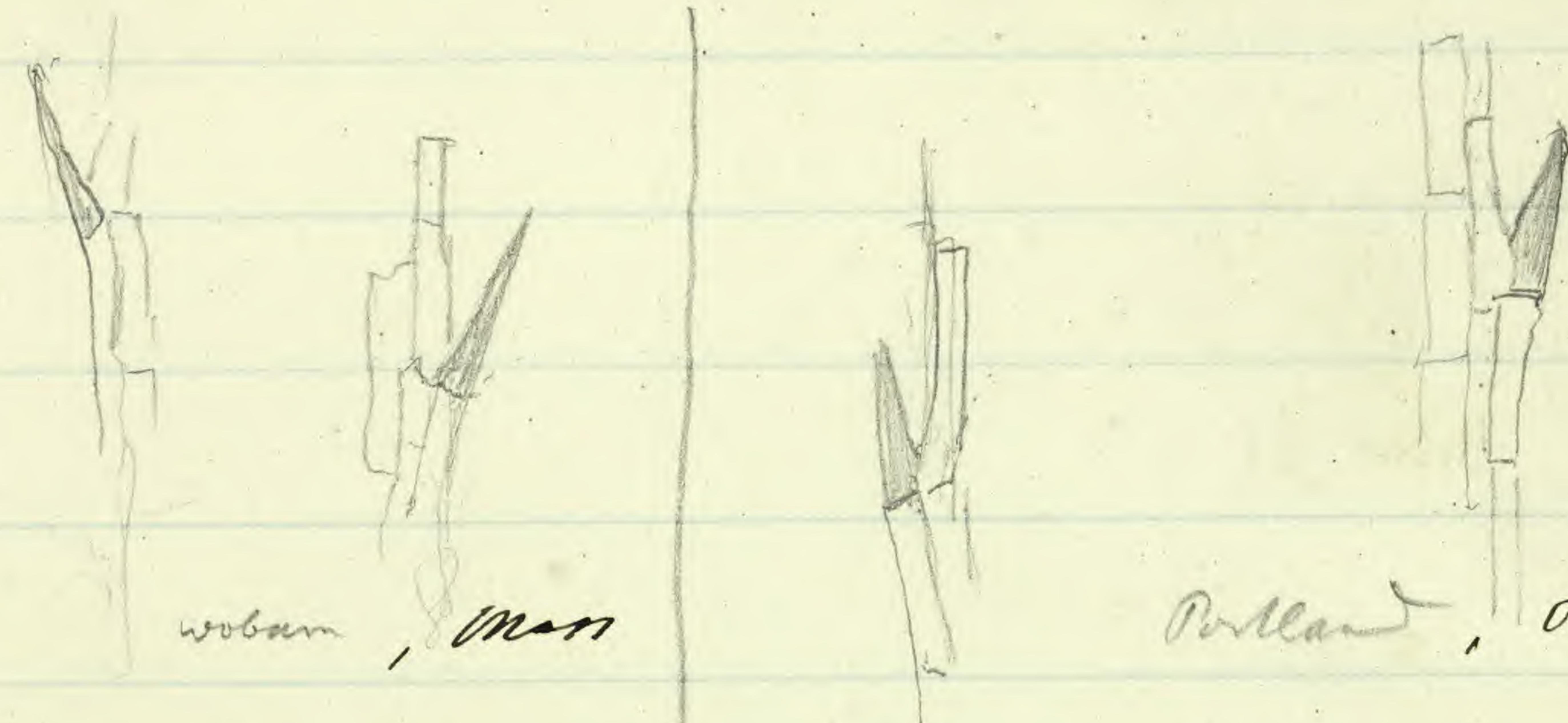
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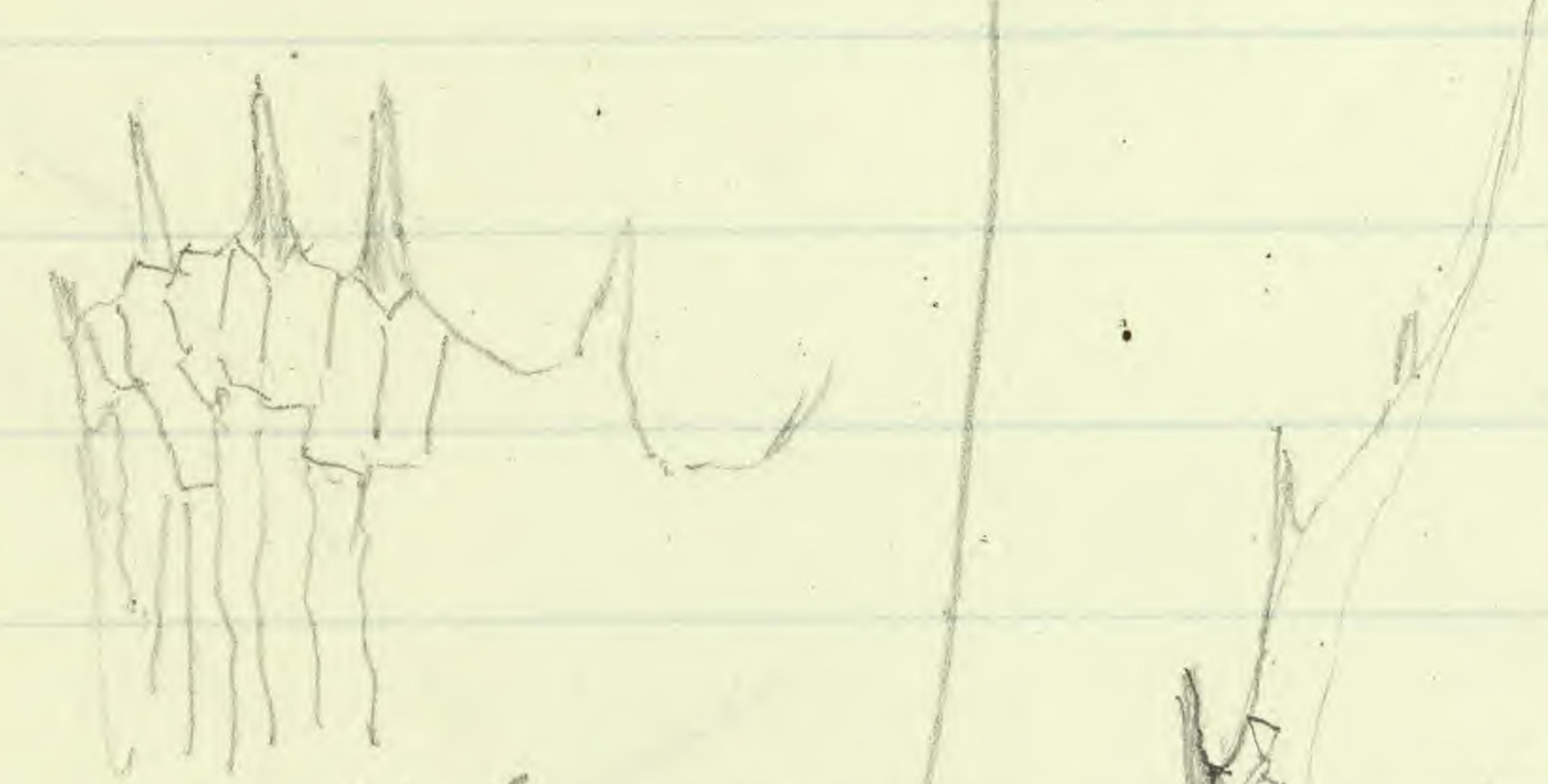
Najas

Cambridge Oct 1883

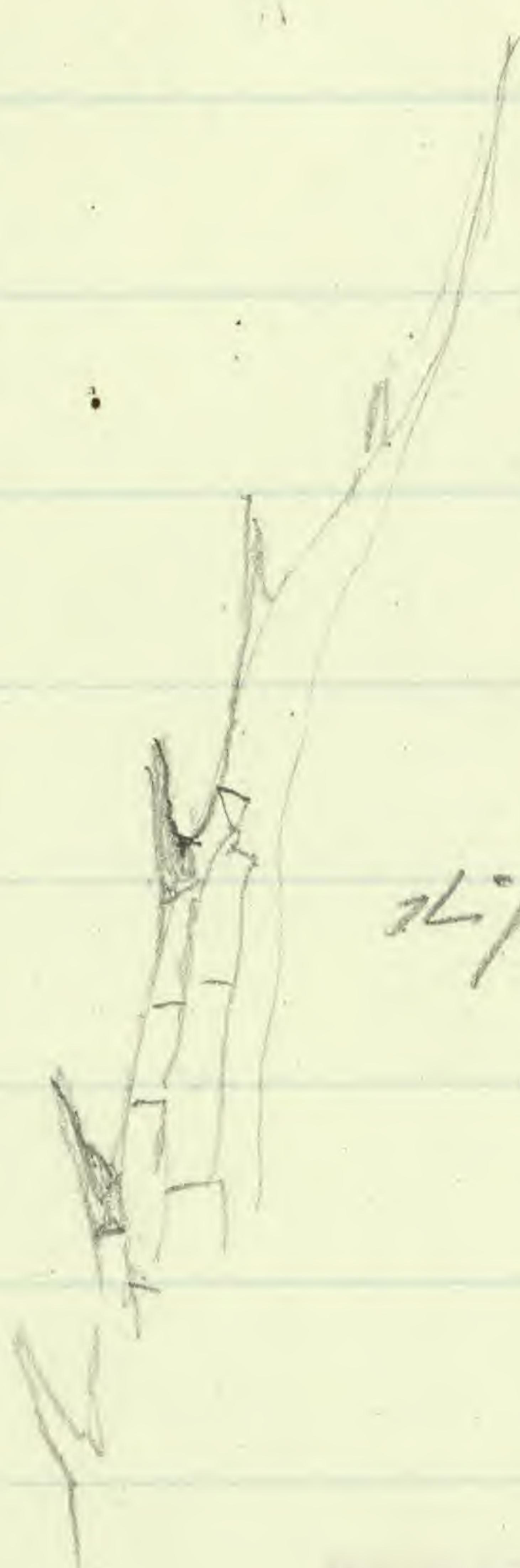


Woburn, Mass

Portland, Oregon



stipula
acutifolii
spine toothed on top



stipula adnata
spine toothed
on side



0
cm

1 2 3 4 5 6 7 8 9 10

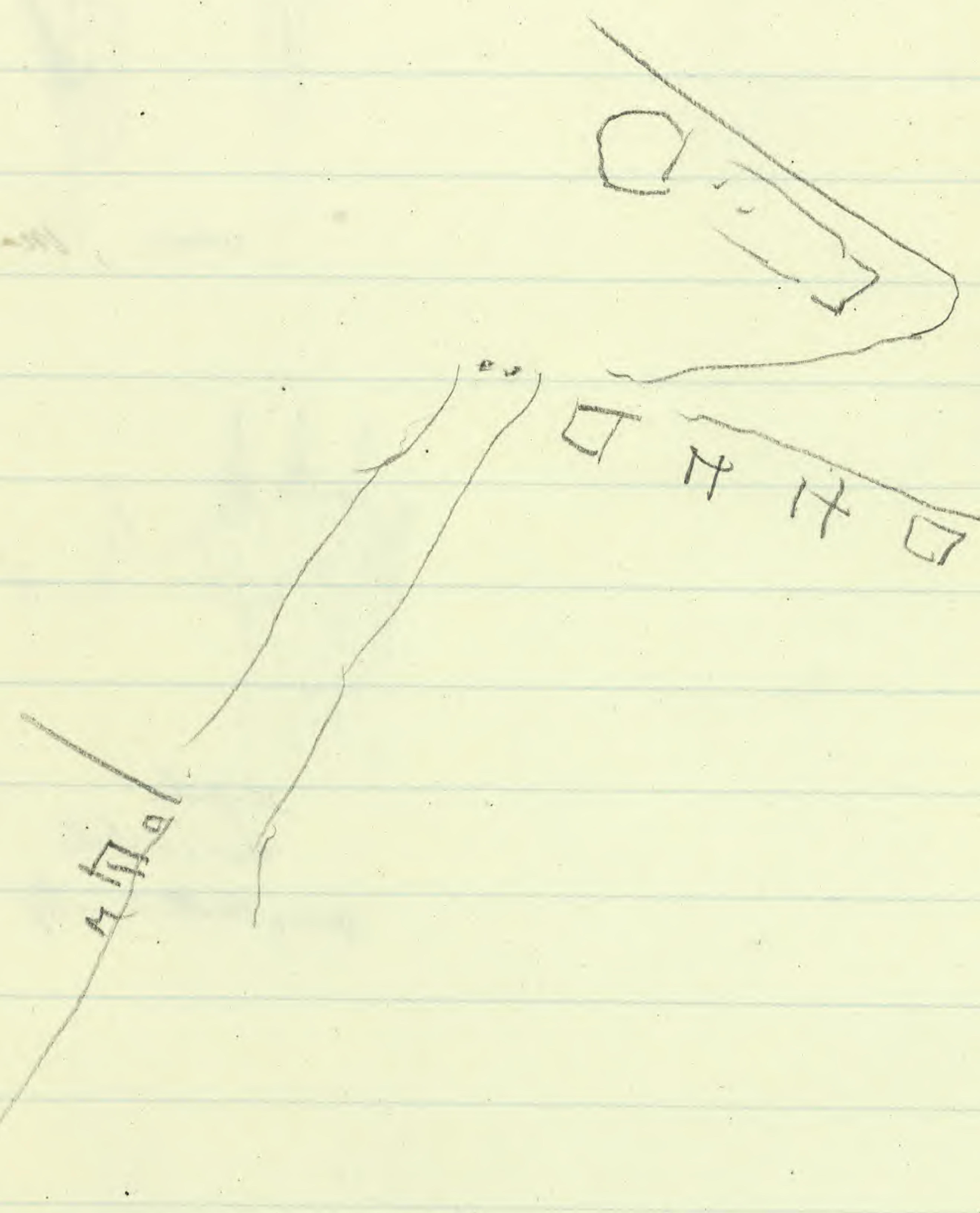
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6300 200 4000



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0 1 2 3 4 5 6 7 8 9 10
cm


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Napi grassineoides Sept 15 1867
var. *gossypium* Odo.

Albany N.Y. C. H. Peck 1867



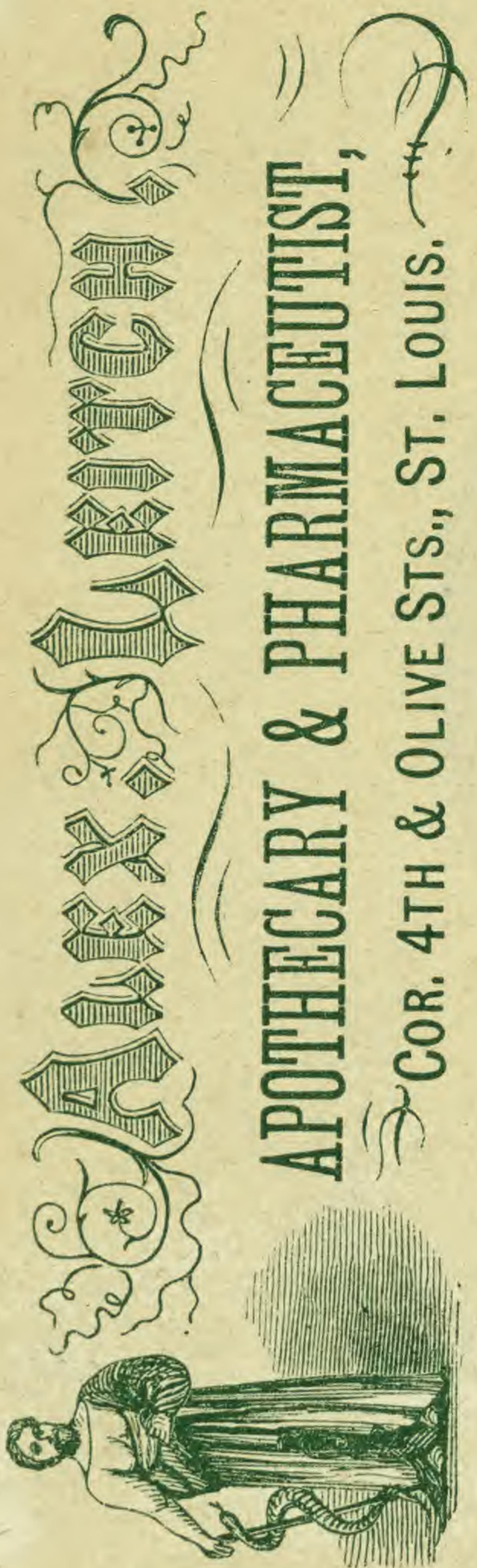
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cm

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cm

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Najas major

Sep 15 1867

Syrnium York

Theriogia

Syrnium

$\times 60$

$\times 10$



$\times 60$

seed irregular
reticulated



0 1 2 3 4 5 6 7 8 9 10

cm

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cm

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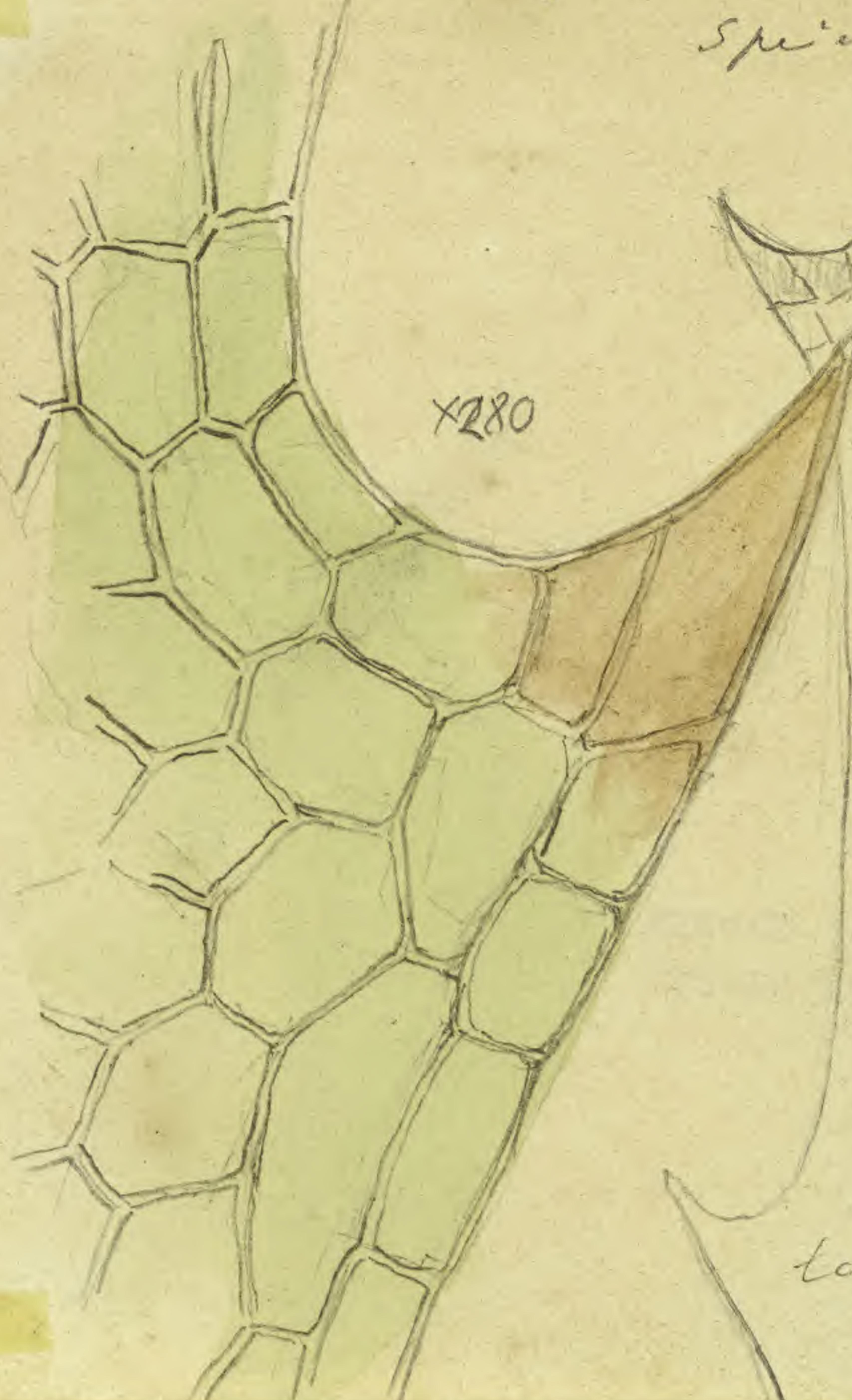


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Najas minor

Sept. 15 1867

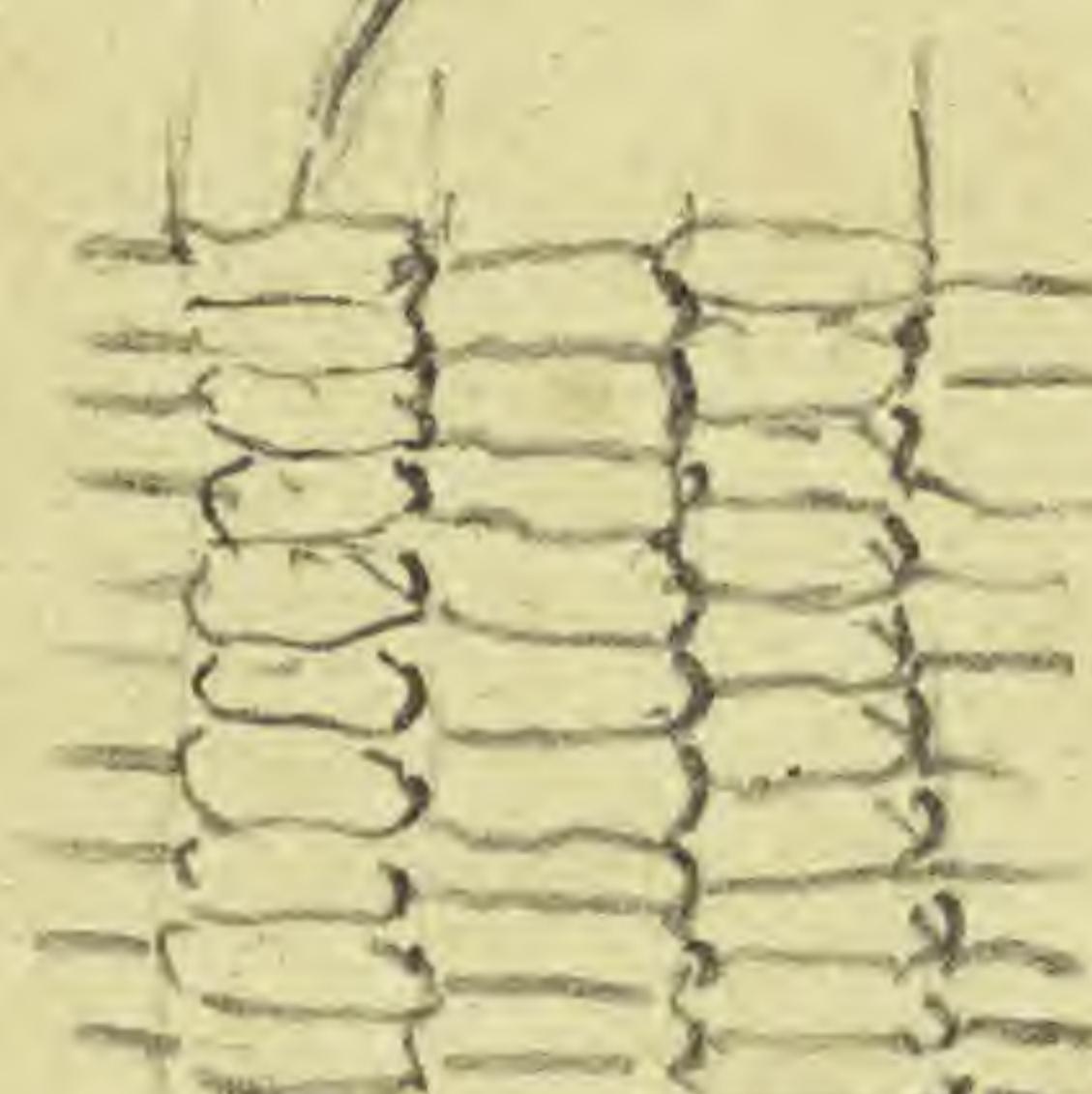
Spec. Aug 1827



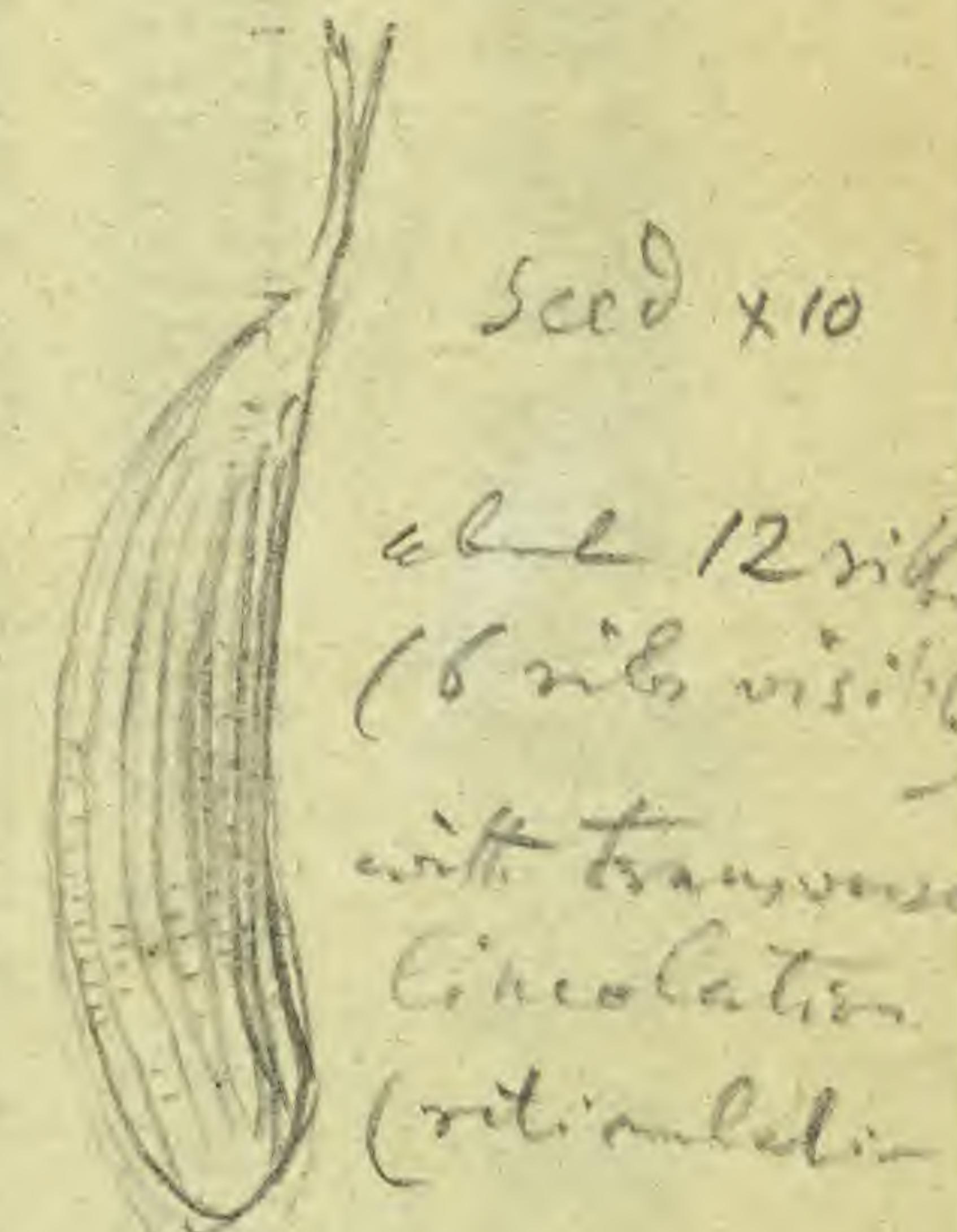
x280

leaf x60

leaves
occurred
 $\frac{1}{2}$ inch
long
sometimes
more



surface of
seed x60



seed x10

leaves
occurred, with 20-30
teeth



base of leaf x10



0 1 2 3 4 5 6 7 8 9 10

cm

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Najades Cabenfes.

Nº 81. Najas major Al.

— 75. — confusa Adans
(angusta var. confusa
Adans. in Seemann
Journal of Bot. II
1864. p. 274. (Sapotie)

— 78 — Wrightiana Ad. n. sp.
affinis roacedrati,
ectione Najadis
angustae

— 73 — Wrightiana var.
laxa Ad.

— 72, 77, 74, 76 — microdonta
(sic dubio N. glauca Griseb. Cat.) Adans
formae
variae var. guadalupensis. ^{over}
(Caulinia guadalupensis Spec. pl.)



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for Gay manu & addit Jan 1868

Najas flexilis Asstt. Leaves very narrowly linear straight or rounded, minutely serrate (teeth consisting of single cells) ^{their} abrupt rounded sheathing base toothed; flowers monocious; seeds linear-oval ^{yellow} light brown, smooth and shining, (N. Canadensis Michx., Calotropis flexilis Willd.).

Najas gracilis n.sp. Leaves slender, very narrowly linear, straight, serrate (teeth ³⁰⁻⁴⁰ consisting of 3 cells, the last one brown and concreous) rounded lobes of sheathing base spinulose-ciliate; seeds linear-fusiform, marked with about 24 ribs, impressed dotted between them (N. flexilis var fusiformis Chap. Her p. 444.?) in pond, Albany N.Y. Ott Park, Webb, Mass - Wm. Booth.

Leaves about 1 inch long very slender, - distinguished from N. minor (the slender forms of) by the larger number of teeth of the leaf, by their regularly consist of 3 cells the terminal one of which is brown and concreous, by the upper rounded, almost auriculate edge of the sheath being ciliate not toothed, the illici mostly also brown, and by the peculiar marking of the seed. In the allied N. minor the leaves (mostly rounded) have ^{larger} fewer teeth, and these consist of about 5 or 6 or more cells; the round edge of the sheath is (toothed) ciliate and the seed (at least in the germs four examined by me) is marked with about 12 ribs between which a transverse reticulation is visible.

N. graminea Delile has similar leaves and teeth but the sheath have elongated lamellate ^{toothed} scales.

N. Indica W. is possibly this species but Brum writes that with minor, which occurs can not be



0
cm

1 2 3 4 5 6 7 8 9 10

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H	30° 13' 4	30° 51' 0	30° 26' 8	30° 51' 0
0	Dec. 8	Jan. 8	Dec 14	Jan 8 1866
L	28° 79' 2	28° 84' 2	28° 76' 9	28° 51' 6
2	Jan. 20	May 27	Febr. 25	March 28 1859
M	55° 4	55° 1	55° 9	55° 6
H	97° 5	100° 0	97° 0	104° 0
8	Aug 12	Aug 12	July 5	July 21 1860
L	1° 0	- 9° 0	- 2° 0	- 22° 5
2	March 14	Febr. 15	Dec 21	Jan 1 st 1864
E	6° 2	5° 6	5° 0	5° 8
A & MS	65.2	67.4	70.3	66.6
A & MS	37° 76	43° 20	46° 87	44° 25
9	79	95	110	93
D	35	39	40	44
M	SE next SW next NW SE next NW SE next NW SE next W & NW			
C	4.6	4.6	4.5	4.5
C	137	124	150	141
T	175	192	169	173
V	53	49	46	50
D				
SL				
M	14.5	14.1	13.2	12.7
Ex	1.3 - 28.2	5.7 - 26.8	1.2 - 26.7	0.0 - 41.4

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